

Patent Claims:

1. An infrared thermometer having an infrared sensor and a probe tip including a radiation inlet opening enabling infrared radiation to travel from a measurement site to the infrared sensor,
^{wherein}
~~characterized in that~~ it includes additionally a probe head (5) mountable on the probe tip (2).

2. An infrared thermometer having an infrared sensor and a radiation inlet opening enabling infrared radiation to travel from a measurement site to the infrared sensor,
^{wherein}
~~characterized in that~~ it includes ^{at least} a probe tip (2) ~~and/or~~ a probe head (5) demountably attachable to the thermometer (1).

3. The infrared thermometer as claimed in claim 1 or 2,
^{wherein at least}
~~characterized in that~~ the probe head (5) ~~and/or~~ the probe tip (2) ~~is/are~~ pivotal in at least one spatial plane.

4. The infrared thermometer as claimed in claim 1 ~~or 2~~
^{or 3}
^{wherein}
~~characterized in that~~ the infrared thermometer includes a first switch (3) actuatable when a probe head (5) is installed, and that the calculation of a temperature indication value from the temperature measurement values is influenced by actuation of said first switch (3).

5. The infrared thermometer as claimed in claim 1 ~~or 2~~
^{wherein}
~~characterized in that~~ the infrared thermometer includes a second switch (4) actuatable when a protective cover (6) is installed over the probe tip (2), and that the calculation of a temperature indication value from the temperature

measurement values is influenced by actuation of said second switch (4).

6. The infrared thermometer as claimed in claim 1 ~~or~~
~~wherein~~
~~characterized in that~~ the probe head (5) includes an opening for infrared radiation.

7. The infrared thermometer as claimed in claim 6,
~~wherein~~
~~characterized in that~~ the geometrical shape of the probe head (5) is selected so that the measurement site is shielded from infrared radiation emanating from the environment.

8. The infrared thermometer as claimed in claim 7,
~~wherein~~
~~characterized in that~~ the surface (8) of the probe head (5) located at the end remote from the measurement site during a temperature reading is of a funnel-shaped configuration.

9. The infrared thermometer as claimed in claim 6,
~~wherein~~
~~characterized in that~~ the opening of the probe head (5) is closed by a window (9) transparent to infrared radiation.

10. A method of determining a body temperature (T) from at least one parameter (d0; d1; d2; d3; d4), a skin temperature (Tb) determined by radiation measurement, and an ambient temperature (Ta),

~~wherein~~
~~characterized in that~~ the body temperature is calculated applying the following formula:

$$T = Tb + d0 + d1(Tb-Ta) + d2(Tb-Ta)^2 + d3(Tb-Ta)(d4-Tb)$$

11. The method as claimed in claim 10,
~~wherein~~
~~characterized in that~~ the radiation measurement is performed with an infrared thermometer, and that the parameters (d0;

d1; d2; d3; d4) are determined during calibration of the infrared thermometer.

12. The method as claimed in claim 10 ~~or 11~~,
~~characterized in that~~ wherein at least one of the parameters (d3; d4) takes the non-linear influence of the body temperature on the skin temperature into account.

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